DOCUMENT RESUME

ED 066 187 LI 003 822

TITLE	First Report of the Working Party on Information Retrieval & Dissemination to the 206th Meeting of Council, 20th March, 1971.
INSTITUTION	Institution of Engineers, Sydney (Australia).
PUB DATE	[72]
NOTE	9p.; (0 References); Appendix B
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Engineers; Foreign Countries; *Information Dissemination; *Information Retrieval; *Information Services; Information Systems; *National Programs; *Policy
IDENTIFIERS	Australia; *Scientific and Technical Information

ABSTRACT

The working party was established with instructions to recommend a policy on scientific and technical information retrieval and dissemination and on how that policy might best be implemented. This report of the working party defines what the objectives of such an information system should be and discusses the governmental responsibility toward the system as well as the steps necessary for setting up the service. It is recommended that: (1) Council inform the Prime Minister of the need to take urgent action to deal with the information problem and press for the prompt establishment of a National information service; (2) the attention of the Prime Minister be drawn to the need for representation from the user at the professional level; (3) kindred societies be informed of the Institution's action and invited to lend their support; (4) the Institution continue educating members to use its library and other information services and (5) the working party continue its work and report periodically to Council. (Author/NH)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ED 066187

LIBRARY

Appendix B.

DOC. 4410/71/2

THE INSTITUTION OF ENGINEERS, AUSTRALIA

First Report of the Working Party on Information Retrieval & Dissemination to the 206th Meeting of Council, 20th March, 1971.

****

1. The Working Party was established by Council at the meeting on 30th September, 1970, with instructions to recommend a policy on scientific and technical information retrieval and dissemination and on how that policy might best be implemented. It has held two meetings in Canberra, on 2nd December and 9th February.

The Working Party interpreted its task as covering both aspects of an information service; namely, the promulgation of information on the contents of documents (in the broadest sense) which could be of assistance to users; and secondly the dissemination of these documents to users.

2. The Working Party at its first meeting noted the considerable and active interest in this topic currently being shown by a variety of organisations throughout Australia; and concluded that it should report to Council forthwith so that The Institution's broad policy goals could be determined and made known to all concerned at the earliest opportunity. It adopted this approach because it became clear that the establishment of a suitable nation-wide information service would be quite beyond the resources available to The Institution.

The Working Party concluded that the task for formulating some overall plan for a national system was beyond the capability of any single body at this time, because of the difficulty of reaching a consensus of requirements and because of the many technological developments now taking place in this field.

Nevertheless, the Working Party is convinced that the learned societies of Australia have a leading role to play in this field. They represent at the professional level the actual users of any system that may be developed. It was therefore heartened by the active interest being shown by the Academy of Science, The Royal Australian Chemical Institute, the Building Science Forum and other learned societies.

3. Early in its studies the Working Party was impressed by the Report of the U.S. President's Science Advisory Council published in 1963 and entitled "Science, Government & Information" (The Weinberg Report, see Appendix 1) and the Report No. 6 of the Science Council of Canada (see Appendix 1). Other documents perused by the Working Party showed that the Department of Supply is already providing a fortrightly information service to some Government Departments; that the National Library is making available to medical research workers the contents of MEDLARS tapes purchased from the U.S.A.; and that computers are supporting various library operations in Government Departments, tertiary education

September, 1970, with instructions to recommend a policy on scientific and technical information retrieval and dissemination and on how that policy might best be implemented. It has held two meetings in Canberra, on 2nd December and 9th February.

The Working Party interpreted its task as covering both aspects of an information service; namely, the promulgation of information on the contents of documents (in the broadest sense) which could be of assistance to users; and secondly the dissemination of these documents to users.

2. The Working Party at its first meeting noted the considerable and active interest in this topic currently being shown by a variety of organisations throughout Australia; and concluded that it should report to Council forthwith so that The Institution's broad policy goals could be determined and made known to all concerned at the earliest opportunity. It adopted this approach because it became clear that the establishment of a suitable nation-wide information service would be quite beyond the resources available to The Institution.

The Working Party concluded that the task for formulating some overall plan for a national system was beyond the capability of any single body at this time, because of the difficulty of reaching a consensus of requirements and because of the many technological developments now taking place in this field.

Nevertheless, the Working Party is convinced that the learned societies of Australia have a leading role to play in this field. They represent at the professional level the actual users of any system that may be developed. It was therefore heartened by the active interest being shown by the Academy of Science, The Royal Australian Chemical Institute, the Building Science Forum and other learned societies.

3. Early in its studies the Working Party was impressed by the Report of the U.S. President's Science Advisory Council published in 1963 and entitled "Science, Government & Information" (The Weinberg Report, see Appendix 1) and the Report No. 6 of the Science Council of Canada (see Appendix 1). Other documents perused by the Working Party showed that the Department of Supply is already providing a fortrightly information service to some Government Departments; that the National Library is making available to medical research workers the contents of MEDLARS tapes purchased from the U.S.A.; and that computers are supporting various library operations in Government Departments, tertiary education establishments and private industry. The existing scope and continuing rapid development and proliferation of these facilities are attempts to combat the problem of the information explosion on a local and ad hoc basis.

4. The Working Party was convinced by this and other evidence it has reviewed that it is essential to introduce a national scientific and technological information service as early as practicable, if Australia is to maintain a claim for consideration as a modern industrialised state.

Objectives.

5. The Working Party reports that the objectives of such a scientific and technical information service should be the provision of a system,

(a) capable of meeting the present and future needs of both users and generators of relevant information, no matter how remote their location,

(b) Compatible with and utilising international services,

(c) Capable of collaborating with existing information services in Australia,

LI 003 822

(d) Capable of stimulating the economic use of information,

(e) Empowered to support education in the use of information services both at the tertiary level and for those already actively employed,

(f) Capable of stimulating innovation, research, and development in information services.

6. The Working Party noted that great economic benefits would flow from the setting up of a National system, both from the rationalisation and improvement of present services, and in particular from the exploitation of scientific and technical information which would not otherwise become known.

Governmental Responsibility.

7. The Working Party entirely supported the statement by the Weinberg Committee (see Appendix 1) that the Government "has a responsibility to prevent our Scientific-technical structure from becoming a pile of redundancies or contradictions simply because communication between the specialised communities or between members of a single community has become too laborious. Moreover, since good communication is a necessary tool of good management, the Federal Government, as the largest manager of research and development, has a strong stake in maintaining effective communications".

The Working Party also noted the recommendation of the Third Ministerial Meeting of the Organisation for Economic Co-operation and Development (OECD) (See Appendix 2) that there should be in each country "a national focus within the Government, concerned with all National activity in the field of Scientific and technical information".

The Working Party therefore recommends that a Cabinet Minister shall be given this specific responsibility.

8. The Working Party noted the meeting called by the Council of the National Library to inquire into scientific and technological information requirements and resources, which was held in Canberra on 23rd May, 1970. This meeting of various Commonwealth agencies concluded that the subject must be studied on a national scale, and not confined to Commonwealth Government Departments and authorities. At the conclusion of the meeting, the National Library, by resolution, was asked to set up a representative working party to examine the national need for scientific and technological information services and to report upon certain specific aspects.

It is now known that the National Library Council has chosen the following 11 members for this Committee:

Sir Peter Crisp (Chairman)

Sir Leonard Huxley

LIBRARY

Governmental Responsibility.

7. The Working Party entirely supported the statement by the Weinberg Committee (see Appendix 1) that the Government "has a responsibility to prevent our Scientific-technical structure from becoming a pile of redundancies or contradictions simply because communication between the specialised communities or between members of a single community has become too laborious. Moreover, since good communication is a necessary tool of good management, the Federal Government, as the largest manager of research and development, has a strong stake in maintaining effective communications".

The Working Party also noted the recommendation of the Third Ministerial Meeting of the Organisation for Economic Co-operation and Development (OECD) (See Appendix 2) that there should be in each country "a national focus within the Government, concerned with all National activity in the field of Scientific and technical information".

The Working Party therefore recommends that a Cabinet Minister shall be given this specific responsibility.

8. The Working Party noted the meeting called by the Council of the National Library to inquire into scientific and technological information requirements and resources, which was held in Canberra on 23rd May, 1970. This meeting of various Commonwealth agencies concluded that the subject must be studied on a national scale, and not confined to Commonwealth Government Departments and authorities. At the conclusion of the meeting, the National Library, by resolution, was asked to set up a representative working party to examine the national need for scientific and technological information services and to report upon certain specific aspects.

It is now known that the National Library Council has chosen the following 11 members for this Committee:

Sir Peter Crisp (Chairman)	
Sir Leonard Huxley	
Mr. Derek Fielding, representing University Libraries	
Dr. Phillip Law	Colleges of Advanced Education.
Mr. Gordon Richardson	Australian Advisory Council on Bibliographical Services and Library, Association of Australia.
Dr. Burgmann	C.S.I.R.O.,
Mr. Cromner	Forestry and Timber Bureau.
Mr. L.M. Harris	P.M.G. Department.
Mr. H.A. Wills	Defence Group of Departments.
Dr. Keith Sutherland (C.S.R.)	Industry.
Dr. Togart (B.H.P.)	"

A standing Secretariat has been set up, comprising:-

Mr. A. Ellis	National Library.
Mr. G. Williams	C.S.IR..O.,
Miss Cynthia James.	A.M.U.
Dr. B. Middleton	A.M.P. Ltd.,

9. The Working Party was concerned at these nominations and draws Council's attention to the following points:-

(a) as indicated earlier, any national scientific and technological information service must rely on Government financial and perhaps logistic support, at least in its initial stages. There seems a grave risk that the Government may regard this Committee, the National Library, and the National Library Council as its advisers on this topic.

(b) the Learned societies, who should speak for the user at professional level in the science and technology fields, are not represented on any of the three bodies mentioned in (a),

(c) There is a large and undue predominance of 'library oriented' representatives at all three levels, and the two user representatives both come from large employer organisations.

(d) The Institution has always sought to establish and maintain a good relationship with the National Library in this field, notably by asking the National Librarian to designate a representative for The Institution to the Working Party on Information Retrieval set up by the World Federation of Engineering Organisations. The Working Party noted with particular regret that Mr. A. Ellis, the nominee to W.F.E.O., felt unable to accept his appointment by Council to assist the Working Party in its work.

10. The Working Party recommends that the attention of the Prime Minister be drawn in particular to the need for representation from the user at professional level in any Committee whose advice he may seek on this problem.

Dissemination of Information.

11. The Working Party recommends that the first step towards setting up a National information service for science and technology should be the establishment of a selective current awareness service. Retrospective search facilities should be added, as an extension of a normal library service, when a data bank has been accumulated, so as to meet the needs of the seeker after general or particular information.

See appendix 3 for a description of a selective current awareness service.

Sources of Information.

12. Most of the world's new information is already abstracted speedily and efficiently by [illegible]

bodies mentioned in (a),

(c) There is a large and undue predominance of 'library oriented' representatives at all three levels, and the two user representatives both come from large employer organisations.

(d) The Institution has always sought to establish and maintain a good relationship with the National Library in this field, notably by asking the National Librarian to designate a representative for The Institution to the Working Party on Information Retrieval set up by the World Federation of Engineering Organisations. The Working Party noted with particular regret that Mr. A. Ellis, the nominee to W.F.E.O., felt unable to accept his appointment by Council to assist the Working Party in its work.

10. The Working Party recommends that the attention of the Prime Minister be drawn in particular to the need for representation from the user at professional level in any Committee whose advice he may seek on this problem.

Dissemination of Information.

11. The Working Party recommends that the first step towards setting up a National information service for science and technology should be the establishment of a selective current awareness service. Retrospective search facilities should be added, as an extension of a normal library service, when a data bank has been accumulated, so as to meet the needs of the seeker after general or particular information.

See appendix 3 for a description of a selective current awareness service.

Sources of Information.

12. Most of the world's new information is already abstracted speedily and efficiently by existing organisations, and it would be wasteful to duplicate any of this effort in Australia The national service should build up its initial data bank by buying services which are readily available overseas, from such sources as:

(a) National and international organisations (National Aeronautics and Space Administration, International Nuclear Information Service)

(b) Professional Societies (Chemical Abstracts, Compendex, INSPEC).

(c) Commercial Professional Services (Battelle's various abstracts)

(d) Specialised types of publications, patents, advertising information.

There are some 1,800 abstracting services throughout the world, many of them very specialised, and the selection of those relevant to Australian needs will be one of the keys to a successful service.

13. It may be found that some information generated in Australia, New Zealand and South East Asia is not abstracted satisfactorily by other services; this should then be processed by an Australian abstracting service and made available internationally.

Organisations of a National Service.

14. The Working Party decided that it would not be possible for it to forecast in any detail the final shape and organisation of a national information

n science to technology because of the extremely rapid developments in this field. It did however consider that the organisation would probably comprise two separate branches, not necessarily located in one geographical area nor necessarily controlled by one authority.

15. These two branches of the service can be labbelled (a) the processing centre or centres and (b) the document store or stores.

(a) The processing centre will be responsible for scanning the abstracts received from the various sources described earlier against the users' interest profiles, and preparing and issuing the current awareness service. Skilled interlocuters are required to assist users in the preparation of their interest profiles, and also to assist the inquirer seeking general or particular information when the data bank has been built up.

The processing centre's task can therefore be described as the collection, scanning and storage of tapes.

(b) Document storage and distribution are necessary back-up services to the information provided by the processing centre, because the user will need to consult the relevant document when he has been made aware of its existence. This is the task of a modernised library service.

With regard to this aspect, the Working Party makes the following recommendations:-

(i) Steps be taken to improve the inter-library loan service, as a short term palliative.

(ii) The establishment of a central, or logically decentralised national lending library of science and technology.

(iii) The early investigation and adoption of modern storage and dissemination facilities such as micro-forms, and long-distance reader-printers.

The Working Party foresaw that in the future communication with the information service by a user would be through a computer console on his desk.

Use of Information Services.

16. Basically any information service is an extension of the services already offered by traditional libraries, but not all engineers have been trained to use library services. The Working Party noted with approval the efforts that have been made over a long period to bring The Institution's library services to the attention of members, and the articles on Information Retrieval already published in The Journal. The Working Party was further encouraged by the information that in future abstracts of papers published in the Transactions of The Institution will be printed in The Journal. It urges a continuation of these efforts and suggests that Divisions might become involved in the education of members in the use of library and other information services.

Governments will not become interested in the provision of sophisticated and expensive information services unless there is a widespread demand.

Financial Aspects.

17. The Working Party is not able to make an estimate of the cost of

(b) Document storage and distribution are necessary back-up services to the information provided by the processing centre, because the user will need to consult the relevant document when he has been made aware of its existence. This is the task of a modernised library service.

With regard to this aspect, the Working Party makes the following recommendations:-

(i) Steps be taken to improve the inter-library loan service, as a short term palliative.

(ii) The establishment of a central, or logically decentralised national lending library of science and technology.

(iii) The early investigation and adoption of modern storage and dissemination facilities such as micro-forms, and long-distance reader-printers.

The Working Party foresaw that in the future communication with the information service by a user would be through a computer console on his desk.

Use of Information Services.

16. Basically any information service is an extension of the services already offered by traditional libraries, but not all engineers have been trained to use library services. The Working Party noted with approval the efforts that have been made over a long period to bring The Institution's library services to the attention of members, and the articles on Information Retrieval already published in The Journal. The Working Party was further encouraged by the information that in future abstracts of papers published in the Transactions of The Institution will be printed in The Journal. It urges a continuation of these efforts and suggests that Divisions might become involved in the education of members in the use of library and other information services.

Governments will not become interested in the provision of sophisticated and expensive information services unless there is a widespread demand.

Financial Aspects.

17. The Working Party is not able to make an estimate of the cost of establishing a national information service, but it has noted the following figures:

U.S.A. to setting up a United Engineering Information Service, $135,000 plus an annual budget of $1.1 million;

U.K. to an extension of INSPEC to provide a Mechanical Engineering Service, $Aust 1,166,000 spread over $4^2/_3$ years.

It is apparent that the provision of an information service is beyond the financial resources of any learned society in Australia.

On the other hand, a Canadian expert has calculated that $1 million spent on an information service gives access to $1 thousand million worth of research.

18. In view of these figures the Working Party therefore recommends that establishment costs of a national information service should be borne by the Federal Government, but after a period of three or four years the service should become self-supporting. It was noted that charges by overseas information services were within the capacity to pay of the smallest companies.

19. The Working Party believes it likely that the early establishment of an information service would lead to an export trade in scientific and technological information which would expand steadily with the industrialisation of our neighbouring countries. However, there exist published plans for the establishment of an Information service located in Thailand to serve South East Asia, and it appears that this opportunity will not last very long. This is an additional reason for setting up the Australian service as soon as administratively possible.

Summary of Recommendations.

20. The Working Party recommends:

(a) that Council inform the Prime Minister of the need to take urgent action to deal with the information problem, and press for the prompt establishment of a National information service for science and technology, together with a National Library of Science and Technology; and that Council believes the matter to be of such importance that the service should be made the responsibility of a cabinet minister.

(b) that Council request the Prime Minister that in any Committee he may advise him on the subject there be representation from the Learned Societies, to speak for the user at the professional level.

(c) that kindred Societies be informed of The Institution's action and invited to lend their support.

(d) (d) That The Institution continue to encourage and educate members to use its Library and other information services.

(e) that the Working Party continue its work, and report periodically to Council.